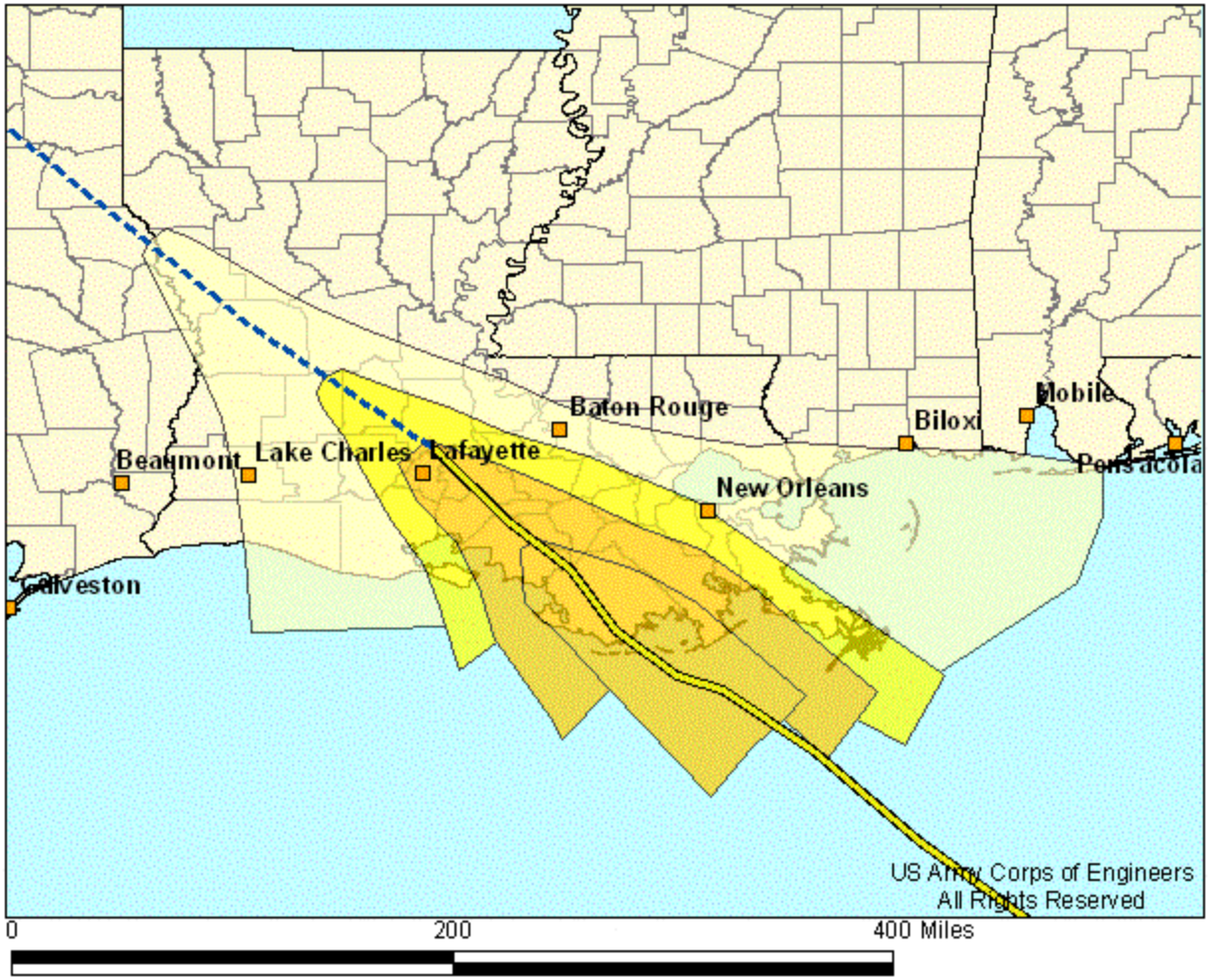
US Army Corps of Engineers

Hurricane Gustav Projected Damage Areas

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track
Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

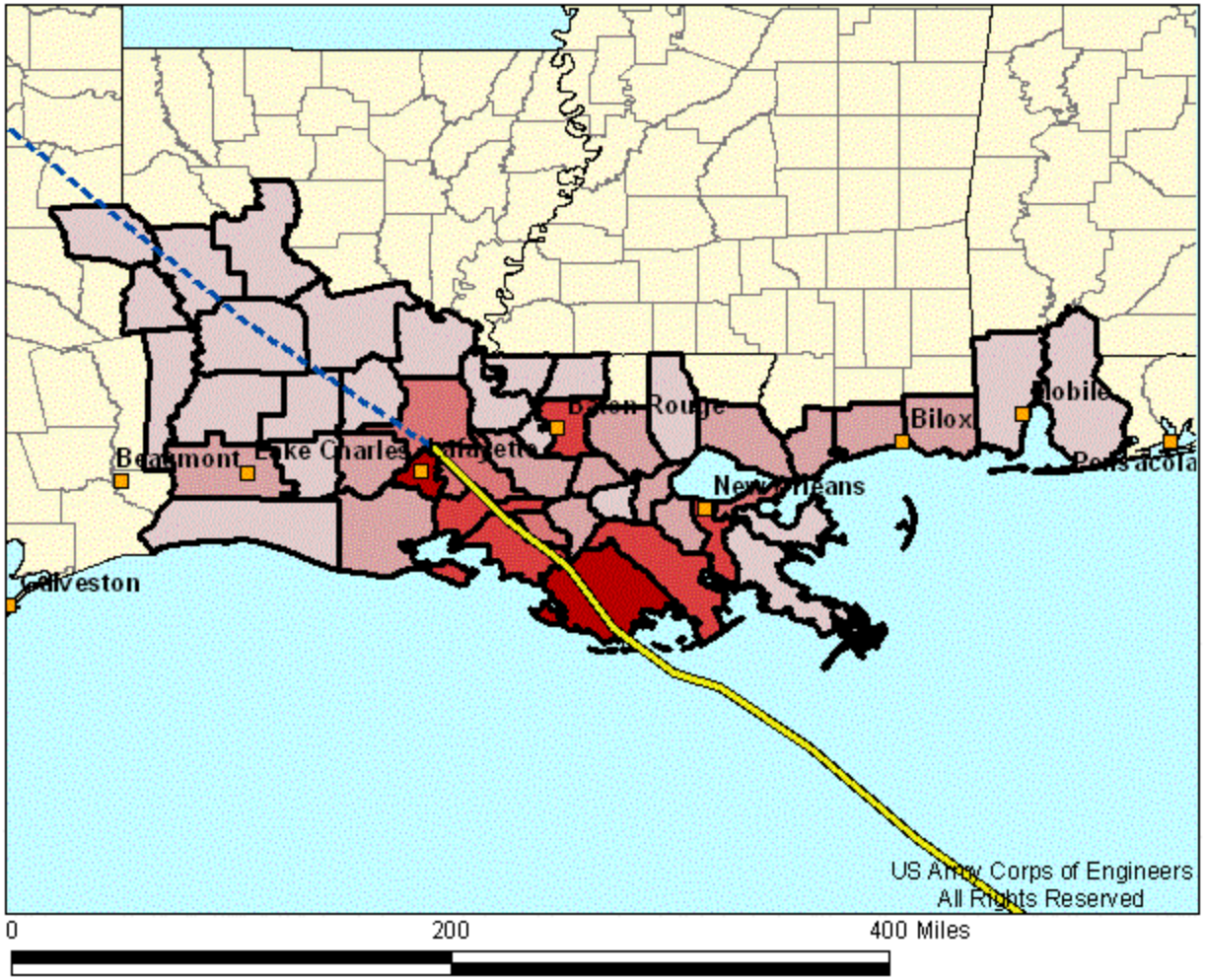
Hurricane Gustav Projected Damage Areas	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 1 of 20

US Army Corps of Engineers

Hurricane Gustav Debris Model

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

Louisiana - 11,229,000 Yards
Mississippi - 501,000 Yards
Alabama - 23,000 Yards
Texas - 10,000 Yards

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track
Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Debris Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Gustav Debris Model

Landfall Plus About 6 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Alabama		Baldwin	20,000
		Mobile	3,000
Alabama	23,000		
Louisiana		Acadia	145,000
		Allen	59,000
		Ascension	191,000
		Assumption	202,000
		Avoyelles	25,000
		Beauregard	54,000
		Calcasieu	195,000
		Cameron	9,000
		East Baton Rouge	588,000
		East Feliciana	< 1,000
		Evangeline	95,000
		Iberia	618,000
		Iberville	101,000
		Jefferson	998,000
		Jefferson Davis	49,000
		Lafayette	1,770,000
		Lafourche	997,000
		Livingston	113,000
		Natchitoches	6,000
		Orleans	398,000
		Plaquemines	55,000
		Pointe Coupee	32,000
		Rapides	31,000
		Sabine	51,000
		St Bernard	30,000
		St Charles	123,000
		St James	51,000

State	Yards per State	County	Yards per County
Louisiana		St John the Baptist	102,000
(continued)		St Landry	292,000
		St Martin	411,000
		St Mary	874,000
		St Tammany	205,000
		Tangipahoa	45,000
		Terrebonne	1,976,000
		Vermilion	211,000
		Vernon	90,000
		West Baton Rouge	34,000
		West Feliciana	3,000
Louisiana	11,229,000		
Mississippi		Hancock	150,000
		Harrison	188,000
		Jackson	163,000
Mississippi	501,000		
Texas		Newton	2,000
		Sabine	6,000
		Shelby	2,000
Texas	10,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Gustav Debris Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

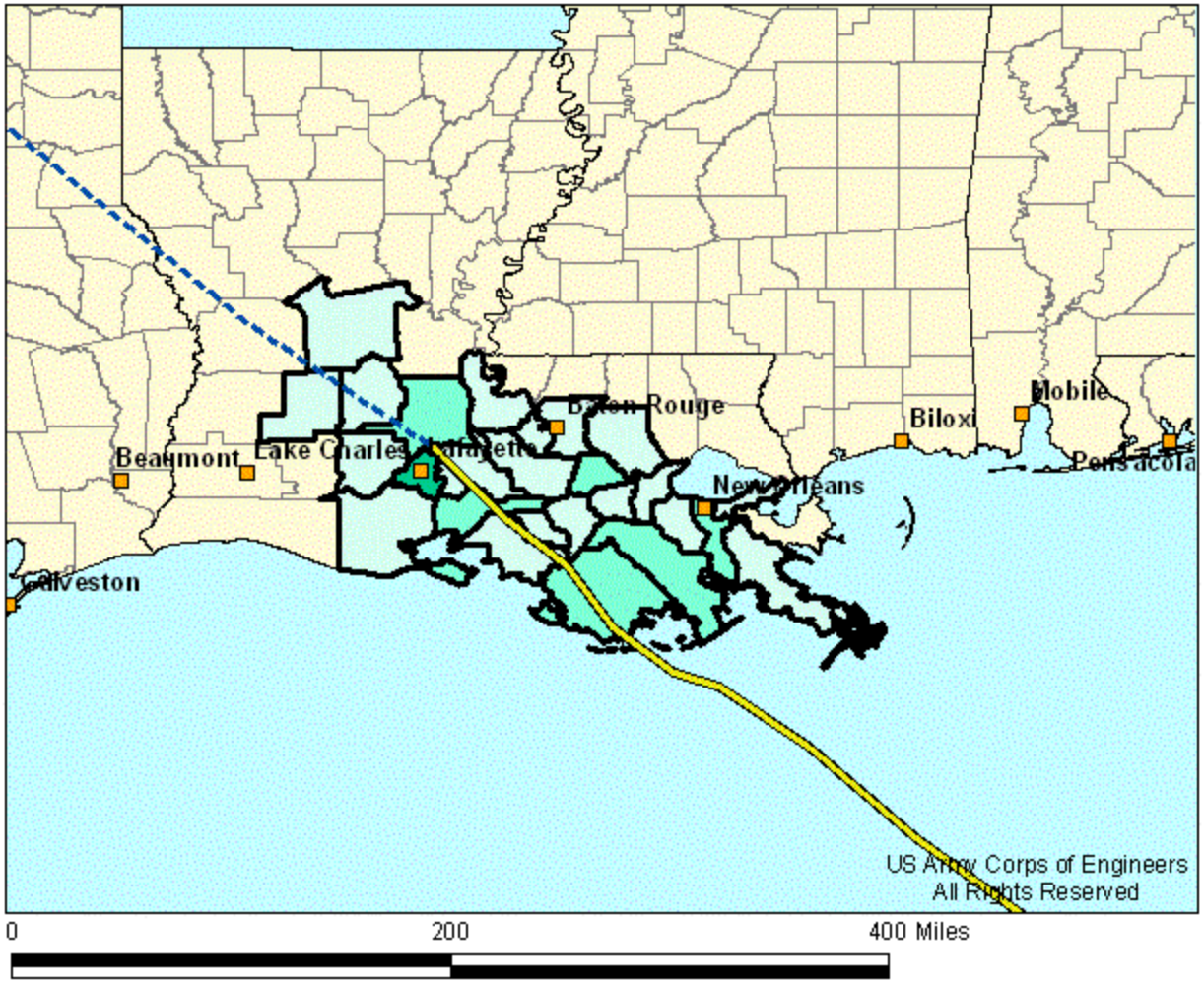
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Gustav Commodities Model

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three
Louisiana – 22/44/87 Truckloads

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC ***(1700 EDT 09/01/2008)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Commodities Model	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Gustav Commodities Model

Landfall Plus About 6 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Louisiana		Acadia	3
		Allen	1
		Ascension	5
		Assumption	2
		East Baton Rouge	3
		Evangeline	2
		Iberia	5
		Iberville	2
		Jefferson	10
		Lafayette	12
		Lafourche	6
		Livingston	1
		Orleans	1
		Plaquemines	1
		Pointe Coupee	1
		Rapides	1
		St Charles	3
		St James	2
		St John the Baptist	3
		St Landry	5
		St Martin	4
		St Mary	3
		Terrebonne	7
		Vermilion	3
		West Baton Rouge	1
Louisiana	87		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Gustav Commodities Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

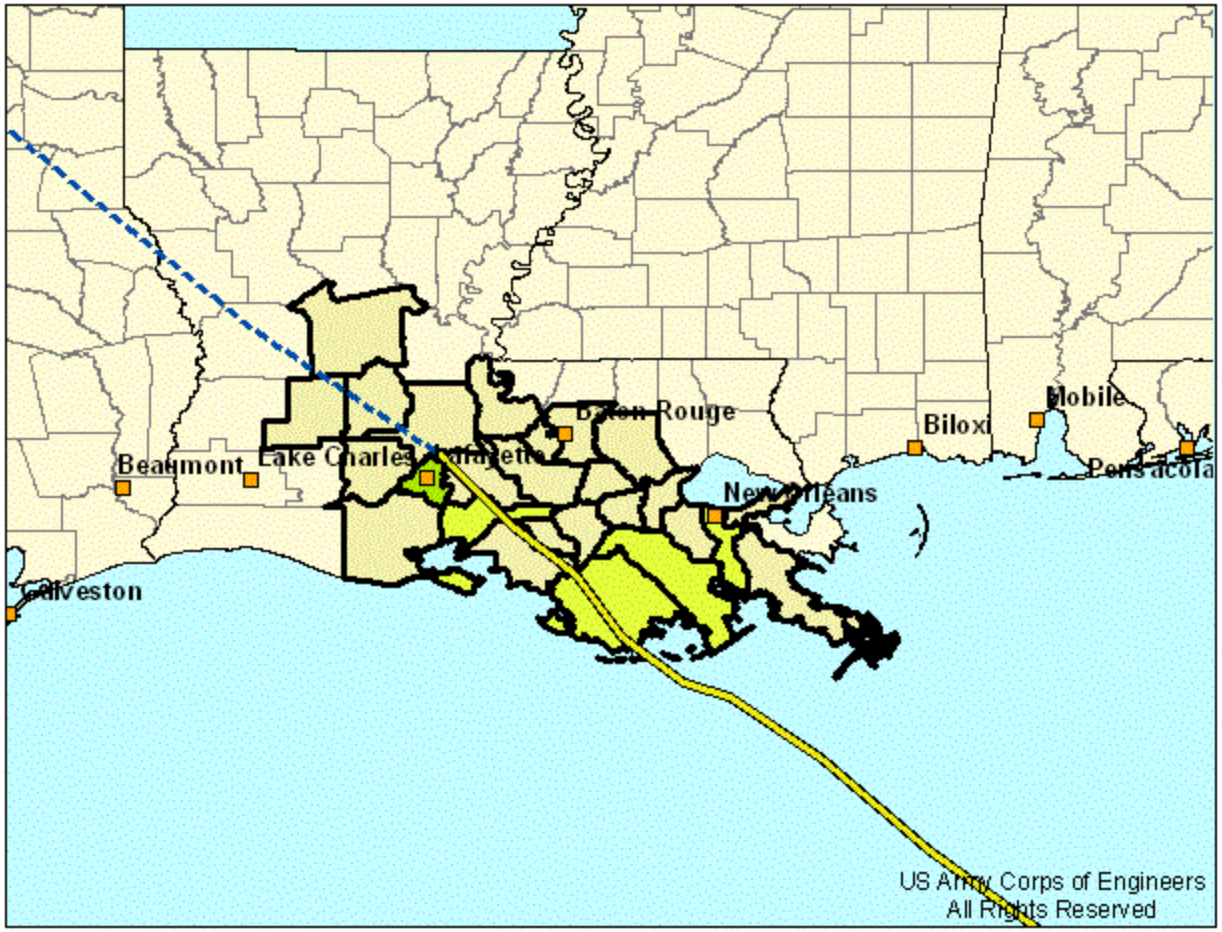
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Gustav Temporary Roofing Model

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

Louisiana - 25,700

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast. Temporary roofing is based on 3% in CAT 1 and 8% in CAT 2.

Details about this model may be obtained at http://www.englinkusace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Roofing Model	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 6 of 20

US Army Corps of Engineers

Hurricane Gustav Temporary Roofing Model

Landfall Plus About 6 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Louisiana		Acadia	600
		Allen	200
		Ascension	900
		Assumption	700
		East Baton Rouge	500
		Evangeline	400
		Iberia	2,100
		Iberville	500
		Jefferson	2,900
		Lafayette	5,200
		Lafourche	2,300
		Livingston	< 100
		Orleans	300
		Plaquemines	200
		Pointe Coupee	< 100
		Rapides	< 100
		St Charles	600
		St James	300
		St John the Baptist	500
		St Landry	1,100
		St Martin	1,500
		St Mary	1,500
		Terrebonne	2,700
		Vermilion	700
		West Baton Rouge	< 100
Louisiana	25,700		

Temporary roofing is based on 3% in CAT 1 and 8% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Gustav Roofing Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

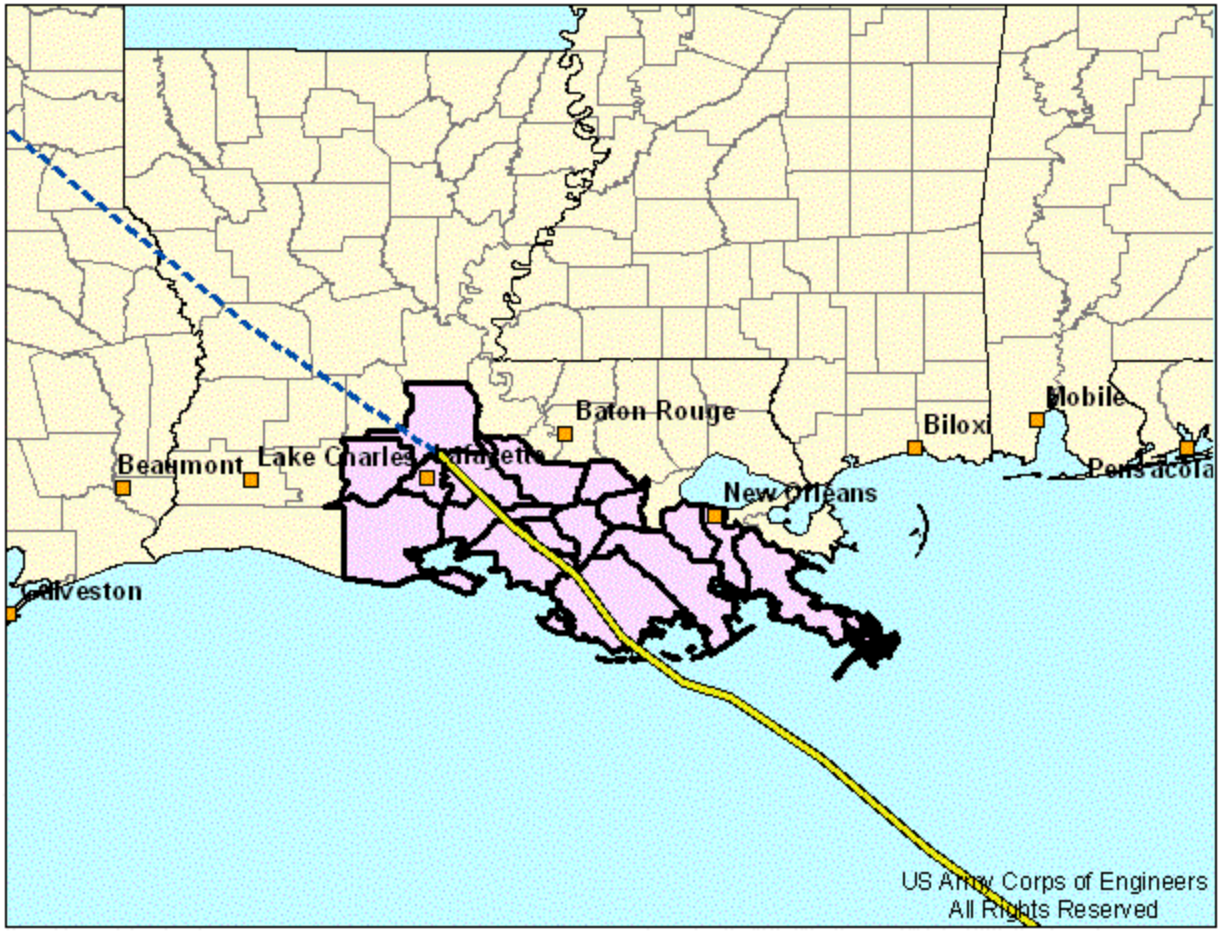
Sources:
HURREVAC
LRL-DEBRIS

Hurricane Gustav Temporary Housing Model

US Army Corps of Engineers

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Temporary Housing Model Results

Louisiana - 2,200

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast. Temporary housing is based on 1% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Housing Model	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 8 of 20

US Army Corps of Engineers

Hurricane Gustav Temporary Housing Model

Landfall Plus About 6 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Louisiana		Acadia	< 100
		Ascension	< 100
		Assumption	< 100
		Iberia	300
		Iberville	< 100
		Jefferson	< 100
		Lafayette	700
		Lafourche	400
		Plaquemines	< 100
		St Charles	< 100
		St James	< 100
		St Landry	< 100
		St Martin	200
		St Mary	200
		Terrebonne	400
		Vermilion	< 100
Louisiana	2,200		

Temporary housing is based on 1% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Gustav Housing Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

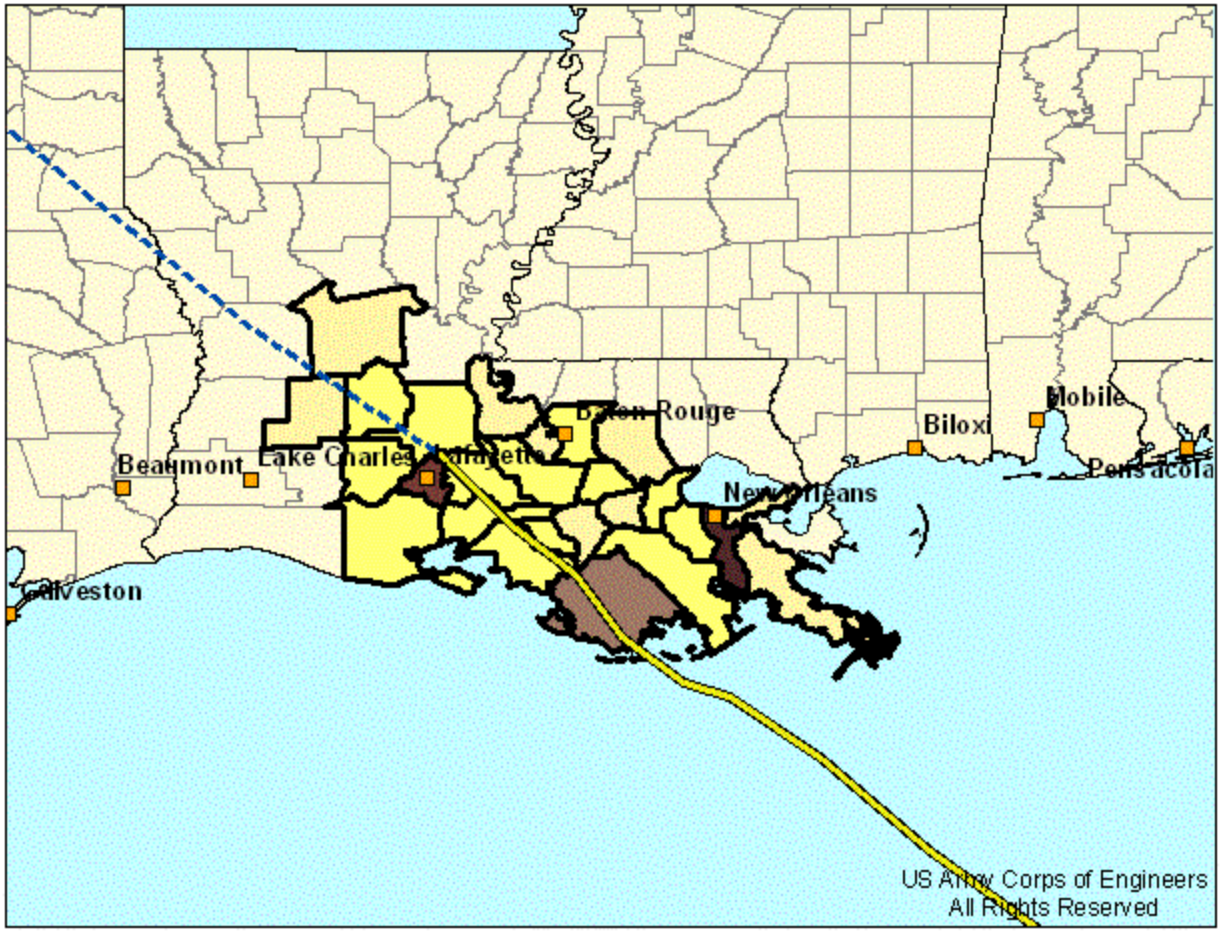
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Gustav Population Model

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

Louisiana - 1,418,000

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2007 values).

Details about this model may be obtained at http://www.englinkusace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Population Model	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 20

US Army Corps of Engineers

Hurricane Gustav Population Model

Landfall Plus About 6 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Louisiana		Acadia	51,000
		Allen	12,000
		Ascension	85,000
		Assumption	23,000
		East Baton Rouge	40,000
		Evangeline	32,000
		Iberia	76,000
		Iberville	33,000
		Jefferson	257,000
		Lafayette	205,000
		Lafourche	93,000
		Livingston	< 1,000
		Orleans	16,000
		Plaquemines	17,000
		Pointe Coupee	2,000
		Rapides	< 1,000
		St Charles	52,000
		St James	22,000
		St John the Baptist	46,000
		St Landry	85,000
		St Martin	52,000
		St Mary	52,000
		Terrebonne	109,000
		Vermilion	49,000
		West Baton Rouge	9,000
Louisiana	1,418,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2007 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Gustav Population Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

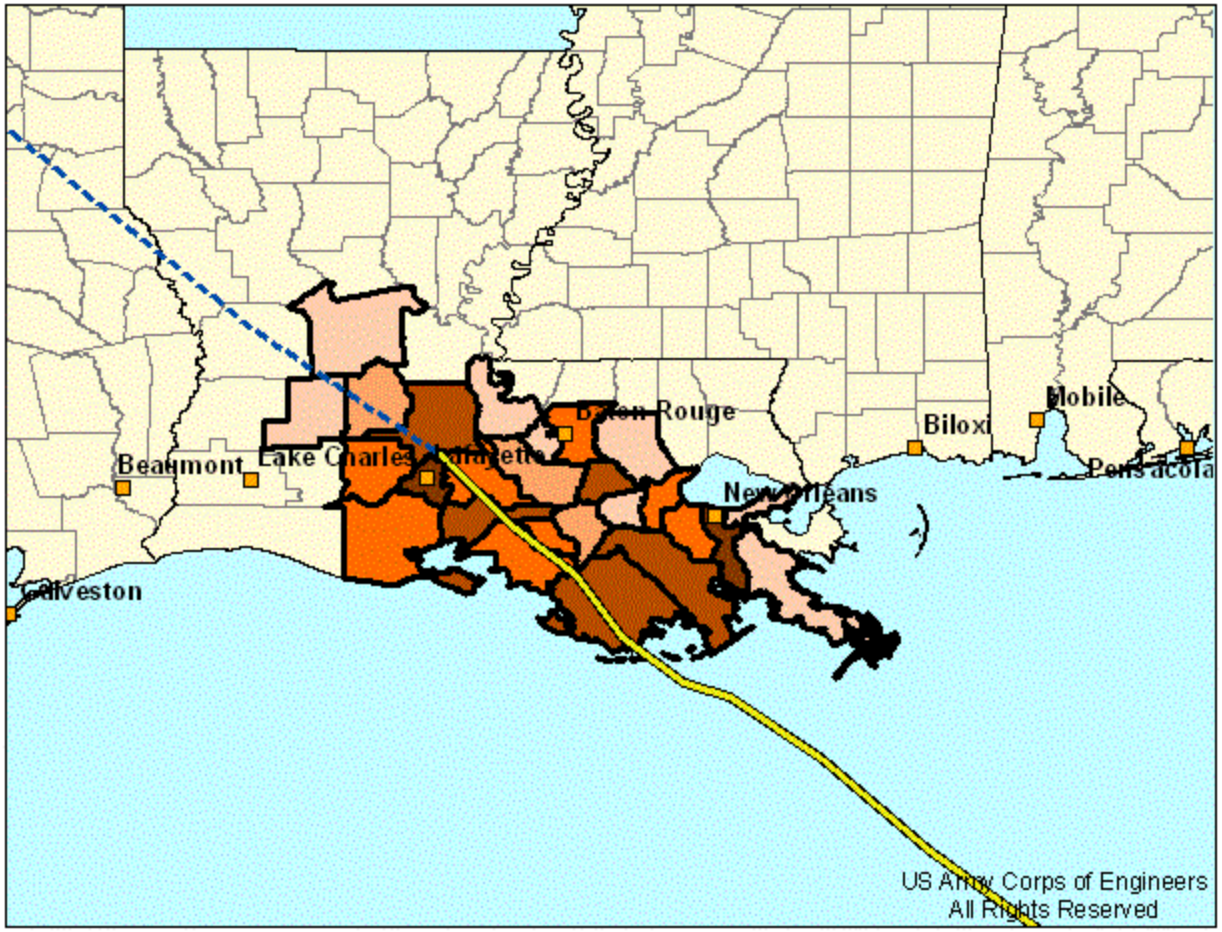
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Gustav Households Model

Landfall Plus About 6 Hours

For Planning Purposes Only!



Post Landfall Households Model Results

Louisiana - 520,000

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Forecast Track
Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2007 values).

Details about this model may be obtained at http://www.englinkusace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Households Model	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Gustav Households Model

Landfall Plus About 6 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Louisiana		Acadia	19,000
		Allen	4,000
		Ascension	30,000
		Assumption	9,000
		East Baton Rouge	16,000
		Evangeline	12,000
		Iberia	27,000
		Iberville	11,000
		Jefferson	94,000
		Lafayette	78,000
		Lafourche	34,000
		Livingston	< 1,000
		Orleans	8,000
		Plaquemines	6,000
		Pointe Coupee	< 1,000
		Rapides	< 1,000
		St Charles	18,000
		St James	8,000
		St John the Baptist	16,000
		St Landry	32,000
		St Martin	19,000
		St Mary	19,000
		Terrebonne	38,000
		Vermilion	18,000
		West Baton Rouge	4,000
Louisiana	520,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2007 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane Gustav Households Model

Generated By:
Siemsen, LRL 1730 EDT 09/01/2008

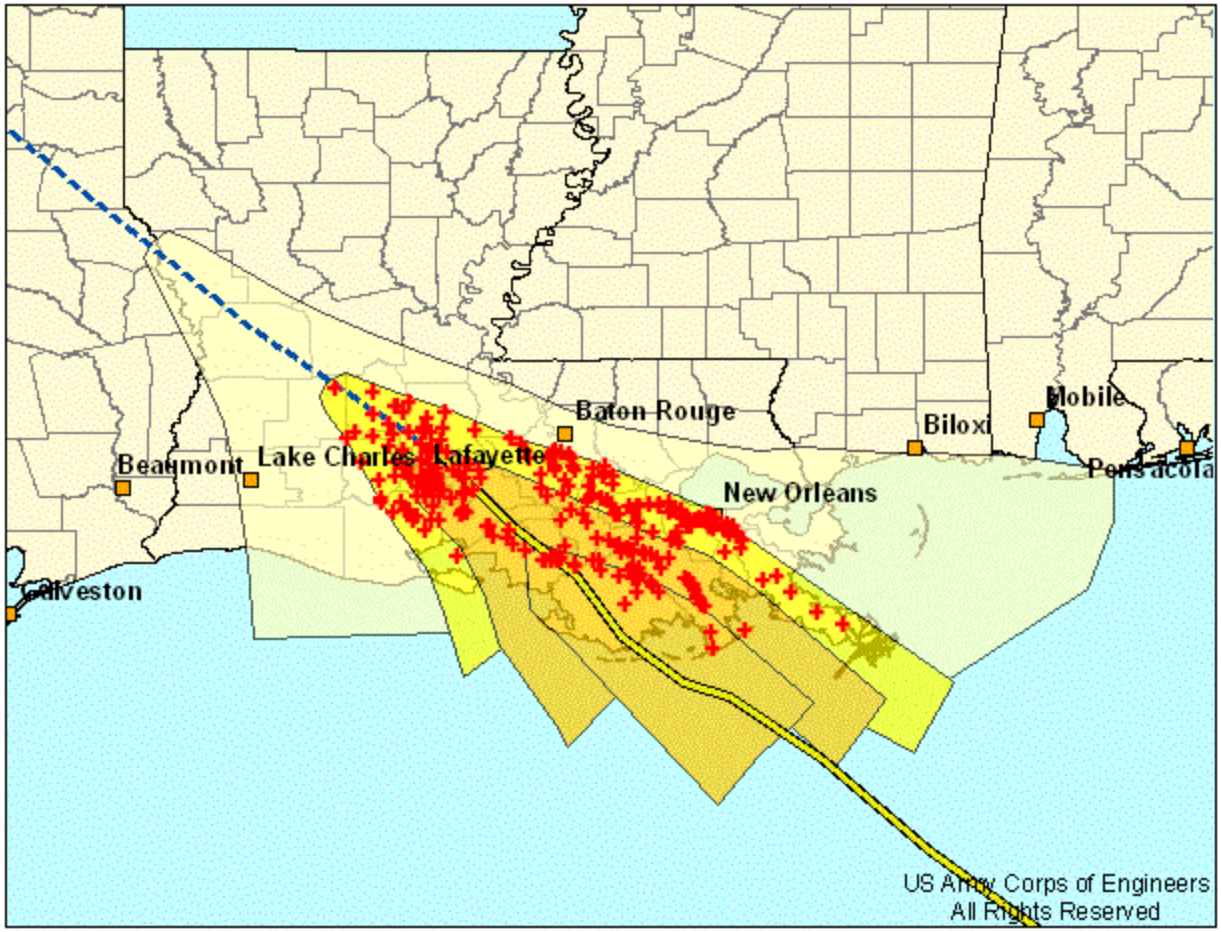
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Gustav Fire Stations

Landfall Plus About 6 Hours

For Planning Purposes Only!



Most Probable Landfall Fire Stations Inside Hurricane Force Winds

Louisiana - 276

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

+ Fire Stations
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englinkusace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

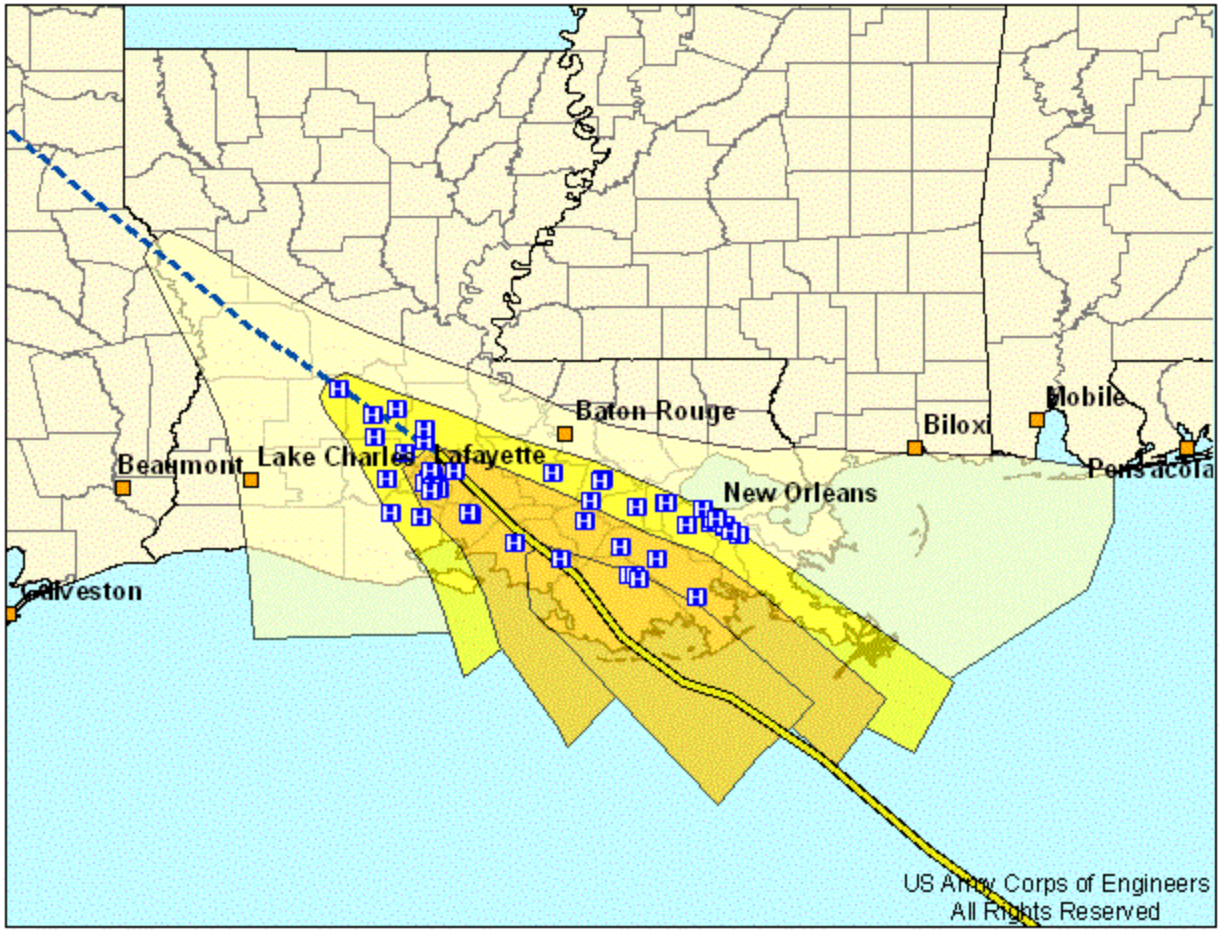
Hurricane Gustav Fire Stations	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 14 of 20

US Army Corps of Engineers

Hurricane Gustav Hospitals

Landfall Plus About 6 Hours

For Planning Purposes Only!



Most Probable Landfall Hospitals Inside Hurricane Force Winds

Louisiana - 54

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

H Hospitals
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englinkusace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

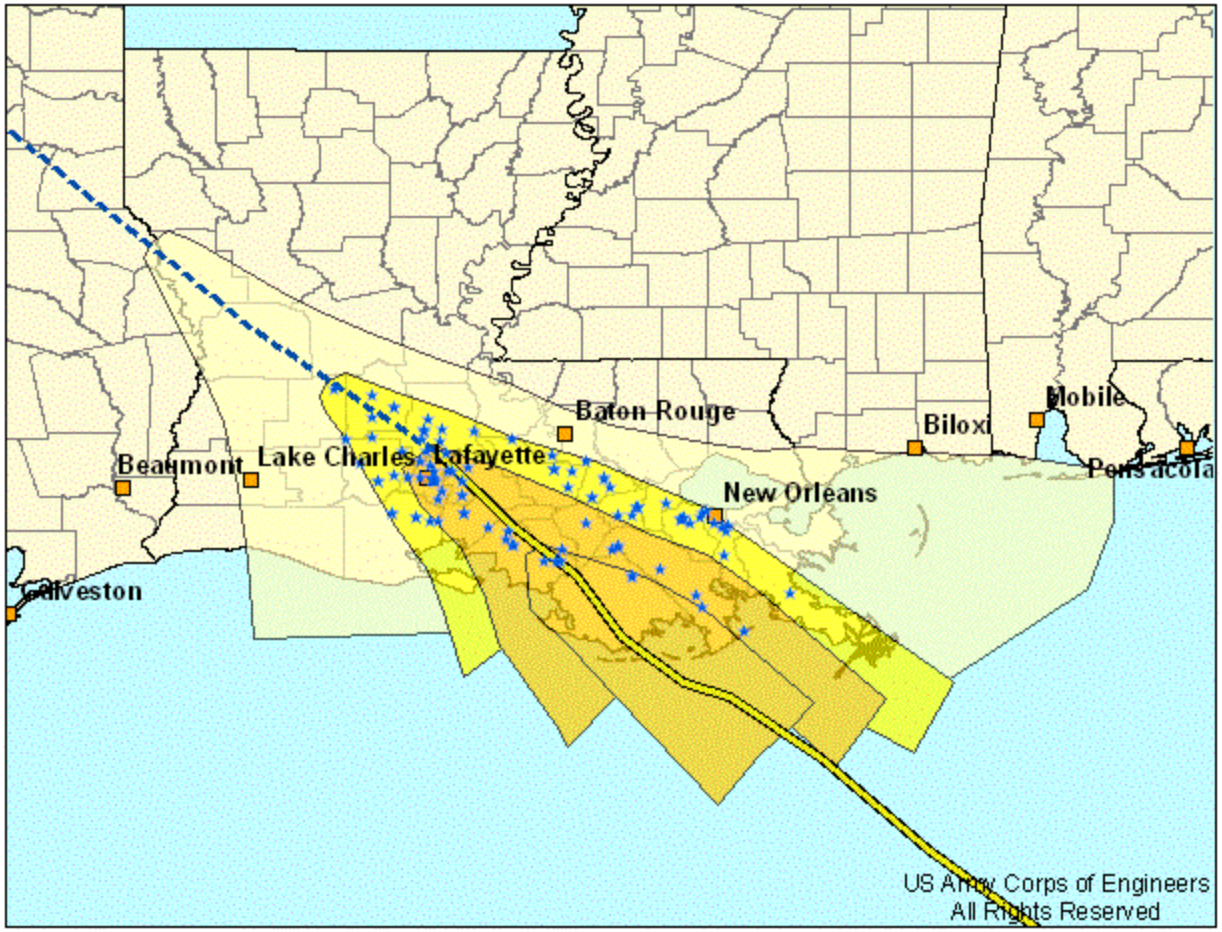
Hurricane Gustav Hospitals	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 15 of 20

US Army Corps of Engineers

Hurricane Gustav Law Enforcement

Landfall Plus About 6 Hours

For Planning Purposes Only!



Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

Louisiana - 105

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Law Enforcement
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of law enforcement included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

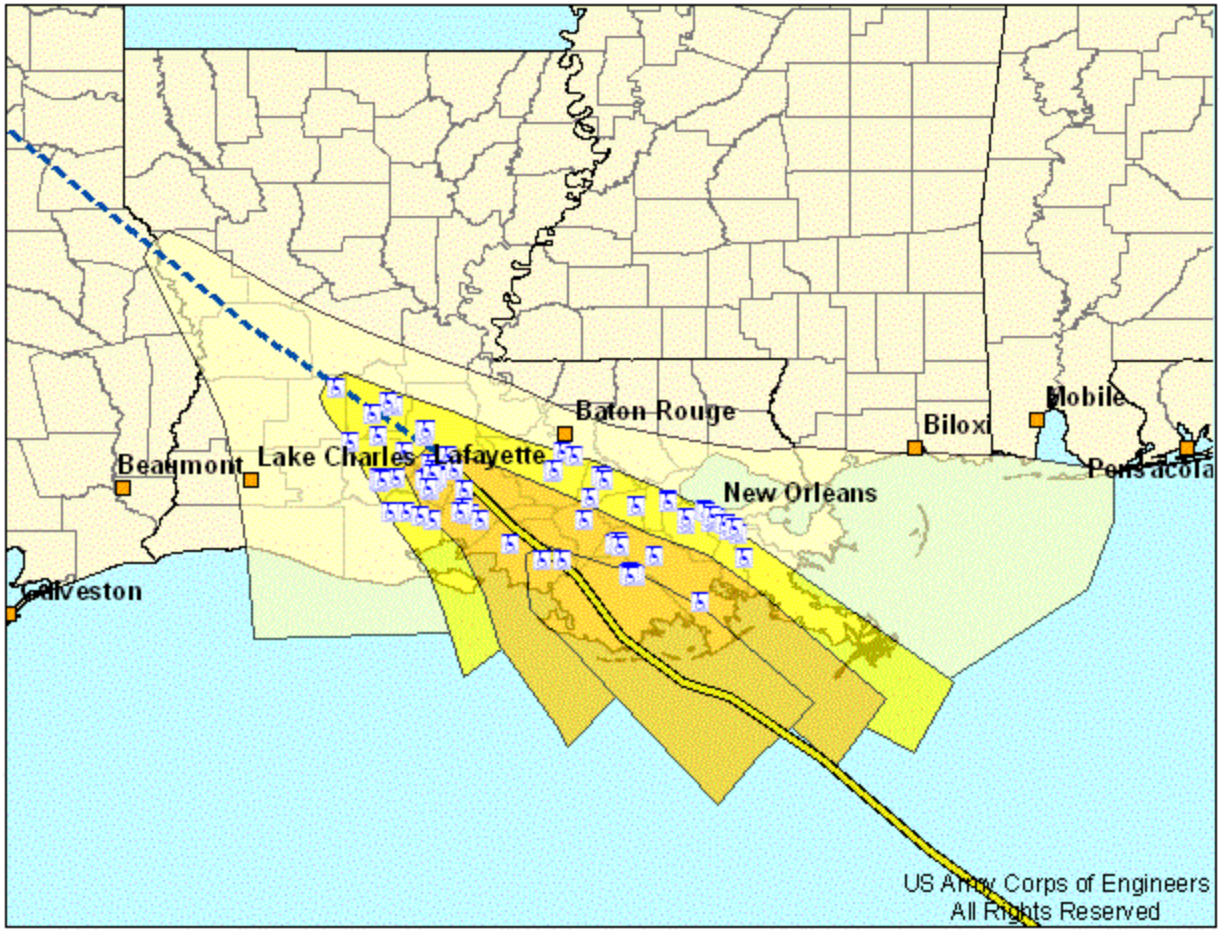
Hurricane Gustav Law Enforcement	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 16 of 20

US Army Corps of Engineers

Hurricane Gustav Nursing Homes

Landfall Plus About 6 Hours

For Planning Purposes Only!



Most Probable Landfall Nursing Homes Inside Hurricane Force Winds

Louisiana - 106

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Nursing Homes
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of nursing homes included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englinkusace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

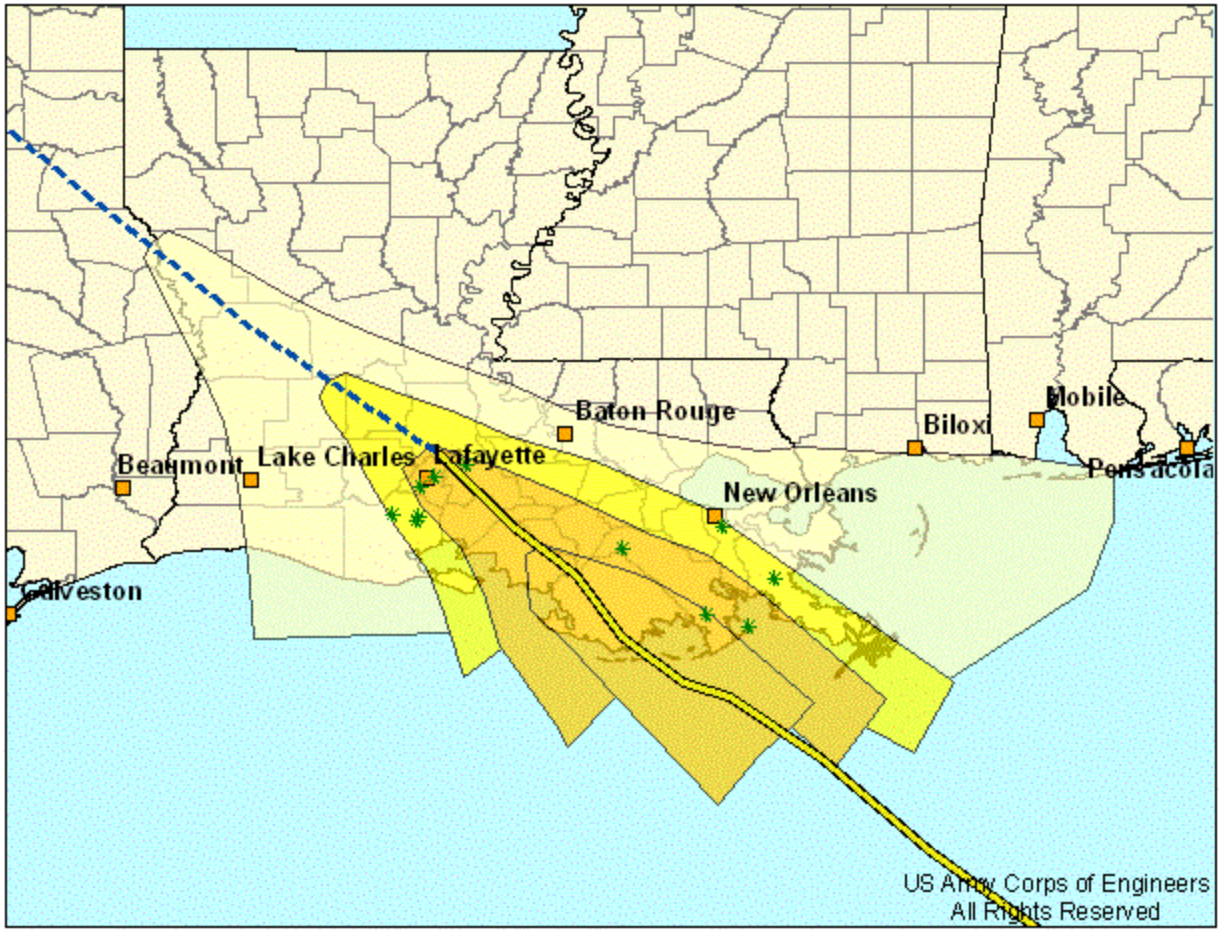
Hurricane Gustav Nursing Homes	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 17 of 20

US Army Corps of Engineers

Hurricane Gustav Potable Water

Landfall Plus About 6 Hours

For Planning Purposes Only!



Most Probable Landfall Potable Water Inside Hurricane Force Winds

Louisiana - 11

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Potable Water
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of potable water included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

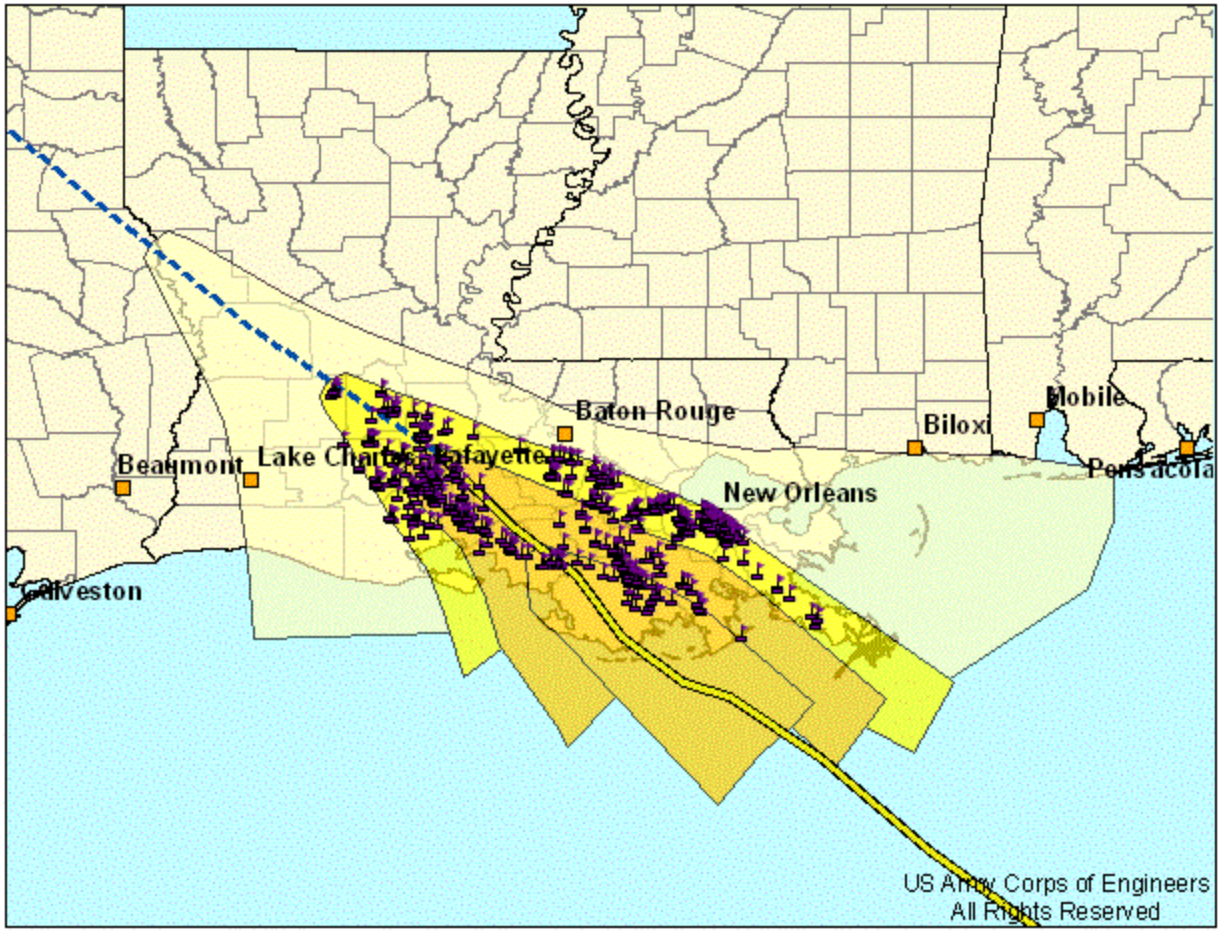
Hurricane Gustav Potable Water	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 18 of 20

US Army Corps of Engineers

Hurricane Gustav Schools

Landfall Plus About 6 Hours

For Planning Purposes Only!



Most Probable Landfall Schools Inside Hurricane Force Winds

Louisiana - 642

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Schools
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of schools included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englinkusace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

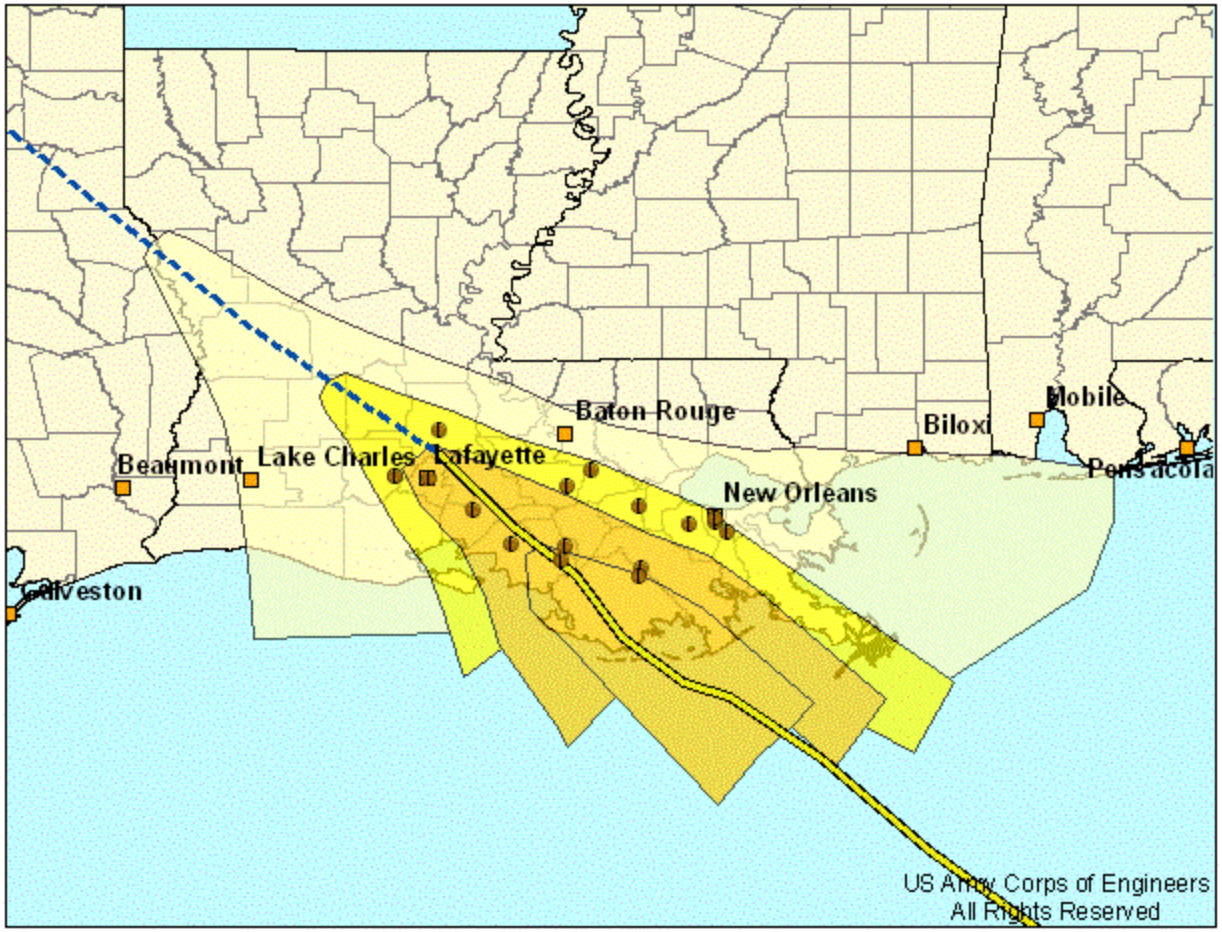
Hurricane Gustav Schools	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 19 of 20

Hurricane Gustav Sewage Treatment Plants

US Army Corps of Engineers

Landfall Plus About 6 Hours

For Planning Purposes Only!



0 200 400 Miles

Most Probable Landfall Sewage Treatment Plants Inside Hurricane Force Winds

Louisiana - 18

Model results per County on following page

This model is based on a Category 2 storm making landfall south of Houma, LA.

Sewage Treatment Plants
Forecast Track
Historic Track

Information provided on this page displays a Category 2 storm making landfall south of Houma, LA. These projections are based on information from the NHC (1700 EDT 09/01/2008) forecast.

The number of sewage treatment plants included in this output are those that would be included within estimated hurricane force winds (data source: Homeland Security Infrastructure Program).

Details about this model may be obtained at http://www.englinkusace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Gustav Sewage Treatment Plants	
Generated By: Siemsen, LRL 1730 EDT 09/01/2008	
Sources: HURREVAC LRL-DEBRIS	Page 20 of 20